

Work Order ID 71521

Wednesday, July 06, 2011 7:49:02 AM



Page 1

Item ID: D412-742-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Float Skidtube Installation

Start Date: 7/5/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/6/2011 Req'd Qty: 1.00



Customer: CC-EAG001

Reference: RMA RA111249

Approvals: Process Plan: 

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN-D412-742	D								

100

0.00



QC

Memo

0.00

Quality Control

INSPECT RA111244

B68631 8 u107105

110

0.00



HandFinish

Memo

0.00

Hand Finishing

-DISASSEMBLE/REMOVE ALL GASKET, WEARPLATES, BOLTS, WASHERS, ELECTRIC STEP HARDWARE, ETC...DISCARD/SCRAP ALL

-REMOVE SADDLES AND GROUND HANDLING LUGS - ENGINEERING APPROVAL REQ'D

-SAND ENTIRE TUBE WITH 320 GRIT

- TOUCH UP ALODINE PER QSI005

B71521

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Item ID: D412-742-011

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Setup Start



Revision ID:

Stop



Item Name: Float Skidtube Installation

Start Date: 7/5/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/6/2011 Req'd Qty: 1.00



Customer: CC-EAG001

Reference: RMA RA111249

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 	QC5- Inspect part completeness to step on W/O	0.00							
QC Quality Control	Memo	0.00							
130 	Spray Painting per QSI005 4.2	0.00							
SprayPaint Spray Painting	Memo PRIME B <u>117319</u> SPRAY PAINT WHITE B <u>117938</u>	0.00							
140 	QC14- Inspect Spray Paint	0.00							
QC Quality Control	Memo	0.00							

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Start Date: 7/5/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/6/2011 Req'd Qty: 1.00



Customer: CC-EAG001

Reference: RMA RA111249

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 HandFinish		0.00							
Hand Finishing	Memo RE-ASSEMBLE TUBE USING NEW GASKETS, WEARPLATES AND HARDWARE PER DRWG	0.00				1	6	11	4/07/03
160 QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.00							70
170 Packaging		0.00							
Packaging	Memo PICK NEW KIT PER ATTACHED PICK LIST	0.00							4/7/11

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Item ID: D412-742-011

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Item Name: Float Skidtube Installation

Start Date: 7/5/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/6/2011 Req'd Qty: 1.00



Customer: CC-EAG001

Reference: RMA RA111249

Run Start



Approvals: Process Plan: _____ Date: _____

Tooling: _____ Date: _____

QC: _____ Date: _____

SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180



QC

Quality Control

QC4- 100% Inspect kits for completeness

0.00

Memo

@cm17406

0.00

8 units

190



Packaging

Packaging

Memo

REPACKAGE PER PPP USING NEW B/N
NEW LABELS AND PAPERWORK REQ'D

0.00

0.00

11/7/11

200



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

OK 11/07/08

ME
11-07-08

Picklist Print

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: A 105.10.13 [New Issue] KJ/JLM
IPP Rev: B 06-06-08 As per DSI9336 JLM
IPP Rev: C 07-05-28 As per Rev C JLM
IPP rev D 07.11.01 ecn 1053P EC
IPP rev E 07.11.27 ecn 1072 EC verified by: DD
IPP Rev: F 08-09-08 ecn 08-510 DD verified by: EC
IPP Rev: G 09-01-23 as per DSI9441 DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN3C37A		Purchased	No				Each	187.0000		3			
---------	--	-----------	----	--	--	--	------	----------	--	---	--	--	--



BOLT

Location	Loc Qty	Loc Code
----------	---------	----------

ST353	178	
-------	-----	--

116874	11	
--------	----	--

117010	2	
--------	---	--

117763	25	117763
--------	----	--------

117885	60	
--------	----	--

118159	80	
--------	----	--

ST354	9	
-------	---	--

117343	9	117343 1x
--------	---	-----------

AN3C40A

Purchased No

Each 85.0000



BOLT

Location	Loc Qty	Loc Code
----------	---------	----------

ST354	85	
-------	----	--

112454	35	
--------	----	--

114442	50	112404
--------	----	--------

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C41A

Purchased

No

Each

159.0000

3



BOLT

Location

Loc Qty

Loc Code

FG

4

103324

4

ST354

155

117407

80

117950

75

117407

AN3C42A

Purchased

No

Each

61.0000

3



BOLT

Location

Loc Qty

Loc Code

ST354

61

106176

21

117763

20

118131

20

106176

AN3C43A

Purchased

No

Each

51.0000

3



BOLT

Location

Loc Qty

Loc Code

ST354

26

114455

20

117313

6

ST355

25

117688

25

117313

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C44A

Purchased

No

Each

81.0000

9



BOLT



Handwritten signature

Location

Loc Qty

Loc Code

ST355

81

110848

81

Each

58.0000

10

AN3C47A

Purchased

No



BOLT



Handwritten signature

Location

Loc Qty

Loc Code

ST355

58

110847

8

116874

50

Each

2,092.000

24

AN3C4A

Purchased

No



BOLT



Handwritten notes: 116874, 24, 1107107

Location

Loc Qty

Loc Code

ST350

2092

117313

2

117688

776

117795

500

117872

22

118012

500

118112

292

Handwritten note: 124

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Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C6A Purchased No

Each 240.0000

12



BOLT

FL



1107108

Location	Loc Qty	Loc Code
FP-A	1	
111982	1	
ST351	239	
111982	2	
116419	23	
116549	2	
116704	12	
117619	50	
117688	100	
117872	50	

y12

AN3C7A Purchased No

Each 119.0000

8



BOLT

FL



1107107

Location	Loc Qty	Loc Code
ST351	107	
113149	14	
116169	1	
117313	42	
117688	50	
ST352	12	
117619	12	

y8

AN4C47A Purchased No

Each 47.0000

4



Bolt



117619

Location	Loc Qty	Loc Code
ST361	47	
117163	40	
117619	7	

117619

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Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

AN4C52A

Purchased

No

Each

91.0000

8



BOLT

Location

Loc Qty

Loc Code

ST361

91

117163

60

117619

8

117688

7

118012

16

117163 18

118012 78

16

AN4C6A

Purchased

No

Each

410.0000



Bolt

Location

Loc Qty

Loc Code

FG

4

103344

4

ST306

12

117313

12

ST356

394

116704

19

117619

150

117794

50

117872

75

118191

100

117313 128

117619 48

AN4C7A

Purchased

No

Each

359.0000



Bolt

Location

Loc Qty

Loc Code

ST356

359

109147

359

109147

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Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

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Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

AN6C12A Purchased No Each 46.0000
BOLT

Location Loc Qty Loc Code

ST342

46

116022

8

117688

38

AN960C10L NAS1149C0332 Purchased No Each 0.0000



washer

AN960C10L NAS1149C0332 Purchased No Each 0.0000



washer

AN960C416L NAS1149C0432L Purchased No Each 0.0000



WASHER

AN960C416L NAS1149C0432L Purchased No Each 0.0000



WASHER

AN960C616L NAS1149C0632L Purchased No Each 0.0000



WASHER

D2571 Manufactured No Each 8.0000



Saddle, Fwd Out 205

Location

Loc Qty

Loc Code

ST433

8

70456

8

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Parent Item: D412-742-011


Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

8 D2572

Saddle, Fwd In 205

Manufactured No

Each 5.0000

1

Location

Loc Qty

Loc Code

ST433

5

70457


5

Each

6.0000

70457

70458

8 D2573

Saddle, Aft Out 205

Manufactured No

Location

Loc Qty

Loc Code

ST434

6


70458

6

Each

6.0000

1

8 D2574

Saddle, Aft In 205

Manufactured No

Location

Loc Qty

Loc Code

ST434

6


70459

6

Each

198.0000

4

8 D2747

Set Screw

Manufactured No

Location

Loc Qty

Loc Code

ST021

198

69491

98

71163

100

69494

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

D2876

Manufactured No

Each

36.0000



Saddle Spacer

Location

Loc Qty

Loc Code

ST025

4

66849

4

ST026

32

68282

32

Each

55.0000

D2877

Manufactured No



Saddle Spacer

Location

Loc Qty

Loc Code

ST025

55

66843

9

68283

46

Each

110.0000

D3403-1

Manufactured No



Bushing

Location

Loc Qty

Loc Code

ST052

110

69508

5

70696

40

71350

65

Each

45.0000

D3403-3

Manufactured No



Bushing

Location

Loc Qty

Loc Code

ST

45

69509

45

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

D3405-041

Manufactured No

Each 3.0000



Lug Assembly



1

20820

Location

Loc Qty

Loc Code

ST474

3

62227

2

68970

1

D3405-043

Manufactured No

Each 8.0000



Lug Assembly



1

Location

Loc Qty

Loc Code

ST423

2

65703

2

ST481

6

68966

6

D3407-041

Manufactured No

Each 11.0000



Tow Ring



1

68966

Location

Loc Qty

Loc Code

ST463

10

70981

10

ST464

1

69885

1

70981

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

D3417-3

Manufactured No

Each

80.0000

2



Washer

Location

Loc Qty

Loc Code

FG

9

33519

9

ST053

71

51648

24

53182

23

66847

24

51648

D3456-1

Manufactured No

Each

112.0000

1



Washer

Location

Loc Qty

Loc Code

FG

7

25701

7

ST054

105

66848

3

69774

2

71033

50

71165

50

71033

D3533-1

Manufactured No

Each

70.0000

2



Set Screw

Location

Loc Qty

Loc Code

ST066

70

67583

70

67583

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

D3564-1

Manufactured No

Each

16.0000

1



Wearshoe

FP



use original 9/11/07/07

Location

Loc Qty

Loc Code

FG

2

33798

2

FP019

14

69291

14

D3564-3

Manufactured No

Each

10.0000

1



Wearshoe

FP



use original 9/11/07/07

Location

Loc Qty

Loc Code

FG

2

33764

2

FP019

8

64748

3

66000

4

69290

1

D3566-1

Manufactured No

Each

32.0000

2



Gasket

FP



9/11/07/07

Location

Loc Qty

Loc Code

FP011

24

70769

24

FP015

8

68924

2

69279

6

X2

D3564-5

D3564-5

B70864

B68924

Other page see ->

9/11/07/07

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Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

D3566-5



Gasket

Manufactured No

Each

16.0000



1

11/07/07

Location

Loc Qty

Loc Code

FP015

16

68961

16

Each

379.0000



16

D3672-11



Phenolic Washer

Manufactured No

Location

Loc Qty

Loc Code

ST074

379

58046

379

Each

795.0000



58046

32

4

D3672-3



Phenolic Washer

Manufactured No

Location

Loc Qty

Loc Code

ST074

795

64176

295

71159

500

Each

795.0000



4

71159

32

11/07/07

D3672-3



Phenolic Washer

Manufactured No

Location

Loc Qty

Loc Code

ST074

795

64176

295

71159

500

64176

71159

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

D3672-9 Manufactured No Each 312.0000
Phenolic Washer

Location	Loc Qty	Loc Code
ST074	312	
35523	312	

D412-742-015 Manufactured No Each 3.0000
Electric Step

Location	Loc Qty	Loc Code
FG031A	3	
69061	1	
70617	2	

MS21043-3 Purchased No Each 1,133.000
Nut

Location	Loc Qty	Loc Code
FG	72	
103691	72	
ST301	1061	
112314	69	
118077	992	

MS21043-4 Purchased No Each 897.0000
Nut

Location	Loc Qty	Loc Code
FG	40	
104603	40	
ST301	857	
117601	357	
117793	500	

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Work Order ID: 71521

Parent Item: D412-742-011

Parent Item Name: Float Skidtube Installation

Start Date: 7/5/2011

Required Date: 7/6/2011

Start Qty: 1.00

Required Qty: 1.00

MS27039C4-12

Purchased

No

Each

27.0000



SCREW

FP



4

11/07/07

X4

114221

Location

Loc Qty

Loc Code

FP-B

27

114221

27

MS27039C1-09

(X4)

M17831

11/07/07

M27039C1-08

(X4)

M14721

11/07/07

D3672-1

(X4)

B64177

11/07/07

D3672-3

(X4)

M71159

11/07/07

AN960C44166

MS149332R (X4)

M117241

11/07/07

D3401-041 / B71352 (X1)

11/07/07

D2646 / B62678 (X1)

11/07/07

D3553-1 / 56568 (X1)

11/07/07

D3553-3 / B53480 (X1)

11/07/07

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DART Aerospace Ltd

CUSTOMER RETURN

#RA: 111249
Date: JUNE 30, 2011Initiator: M. BELAVANCE (B. DECKETT)
Company: EAGLE COPTERS
Contact: MICK MIELE
Phone No.: 1 403 250 7370Invoice #: 104997
SO#: 104616

Attach Copy of DHS Return Authorization #: _____

SQ#: _____ NCR#: _____ CSR#: _____ PAR#: _____

Reason for Return:

SEE ATTACHED.

Receiving:		Freight Company:		Prepaid Collect	
Date Received:				Distribute to QC	
Qty	Part #	Batch #	Description	Advise QA	Date:
1	D412-142-011	B686	33		
1	D412-142-011	B686	31		

Condition of Packaging: GOOD Photograph Required: ☒ yes ☐ noPaperwork Attached: P/S ☒ Invoice _____ ARC _____ Docs _____ Other _____QC: Quarantine Location: QC Quarant Condition of Part: Sealed / Accepted / ☒ Damaged / Scrap
Inspectors Initial: E Date: 11/7/11 Photograph Required: ☒ yes ☐ no she's kept Part

Qty	Part #	CHG #	Batch #	QC Comments	QC Approval		Scrap
					Initial	W/O#	
	D412-142-011		B68633	see Attached instruction	<u>ES</u>	<u>71519</u>	
	D412-142-011		B68631	she's	<u>ES</u>	<u>71531</u>	

QA Coordinator:

Advise GM as to Findings: Initial: _____ Date: _____

Comments:

Issue Credit: <input checked="" type="radio"/> yes <input type="radio"/> no	CN INVOICE 105468 Date: <u>11/07/11</u>	Invoice Amount: _____
GM Approval: <u>[Signature]</u>		Less Replacement: _____
		Restock Fee: _____
		Freight: _____
		Net Credit: <u>10492.48</u>
		DHS <u>Customer</u>

QA: Enter into Q-Pulse with Reason for Return & File original. Signed: _____ Date: _____

Copy of Customer Return to stay with work orders and another copy to be filed with customer credit

RA 111244 QTY X2 D412-742-011

Float skid tubes

Received at Dart Aerospace July 5th, 2011
Inspected July 5th, 2011

D412-742-011 B68631

Instructions to put float skid tube back into stock

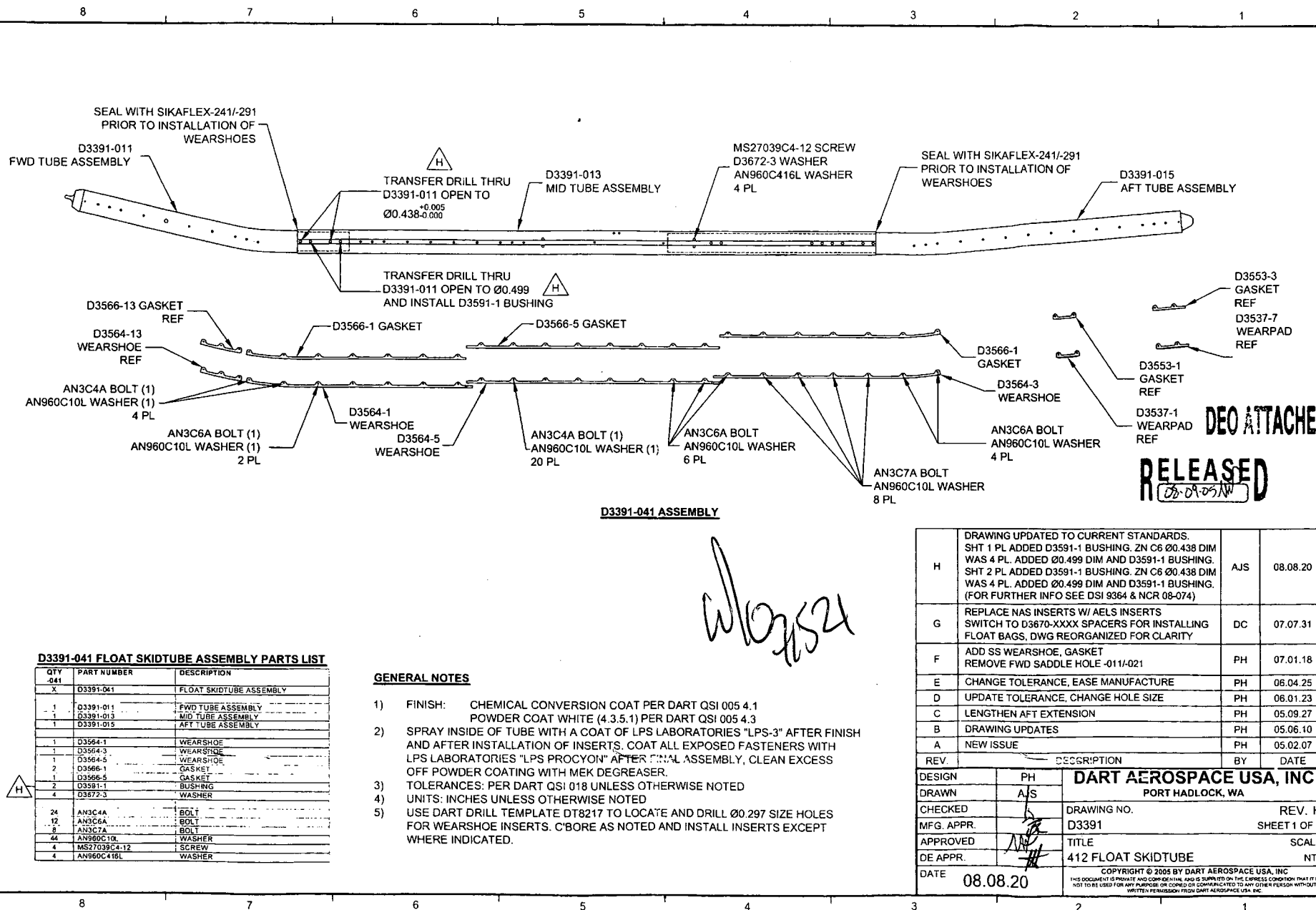
- Remove and **scrap all** wear plates and gaskets
 - Replace with new stock, bolts, and washers
- Remove aft and tow caps
 - Re powder coat as per QSI 005
 - Re install with new bolts and washers
 - AN3C4A, AN960C10L, D3672-1, QTY X8
- Remove all **SADDLES AND GROUND HANDLING LUGS** and set aside for engineering approval
 - create different w/o for this
- discard all hard ware (nuts, bolts, bushings and washers)
- remove all electric step hard ware and discard
- **SAND ENTIRE TUBE WITH 320 GRIT**
- **TOUCH UP ALODINE AS PER QSI 005**
- **RE POWDER COAT AS PER QSI 005**
- Re assemble as per Drawing
- **NO TOW RING WAS RETURNED**
- **Needs complete new kits**

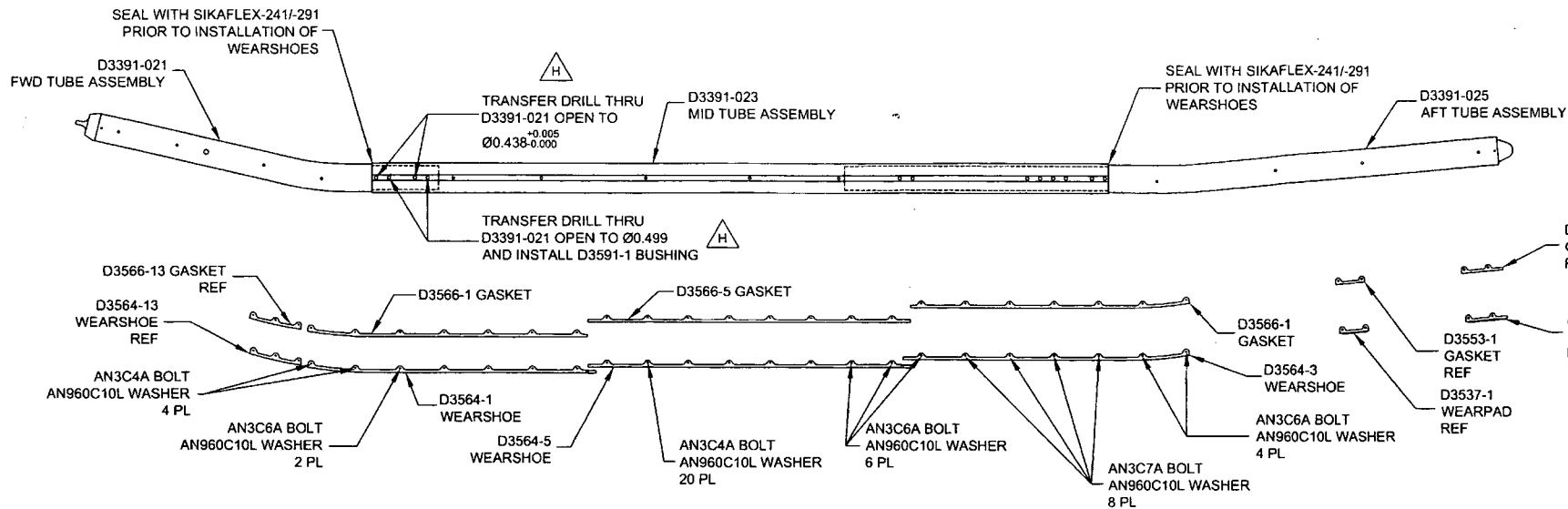
D412-742-011 B68633

Instructions to put float skid tube back into stock

- Mark on **FWD TUBE HOLD FOR ENGINEERING APPROVAL**
- Remove and **scrap all** wear plates and gaskets
 - Replace with new stock, bolts, and washers
- Remove aft and tow caps
 - Re powder coat as per QSI 005
 - Re install with new bolts and washers
 - AN3C4A, AN960C10L, D3672-1, QTY X8
- Remove all **SADDLES AND GROUND HANDLING LUGS** and set aside for engineering approval
 - create different w/o for this
- discard all hard ware (nuts, bolts, bushings and washers)
- remove all electric step hard ware and discard
- **SAND ENTIRE TUBE WITH 320 GRIT**
- **TOUCH UP ALODINE AS PER QSI 005**
- **RE POWDER COAT AS PER QSI 005**
- Re assemble as per Drawing
- **NO TOW RING WAS RETURNED**
- **Needs complete new kits**

**BOTH TUBE MIGHT ENCOUNTER
PROBLEMS DURING ASSEMBLY DUE TO
STRIPED INSERTS OR OTHER UNFORSEEN
ISSUES**





D3391-043 ASSEMBLY

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
1	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3566-1	GASKET
2	D3566-5	GASKET
2	D3591-1	BUSHING
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER

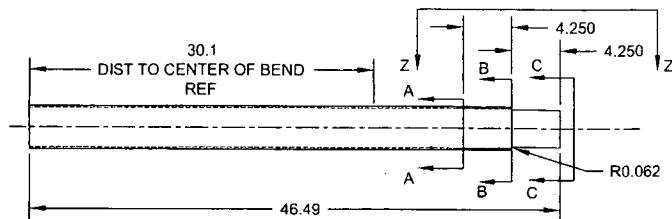
GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.

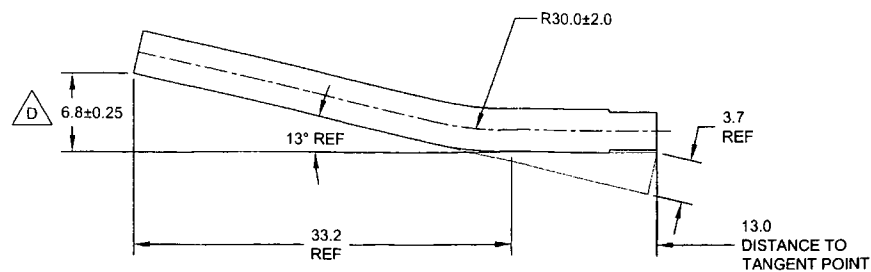
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RELEASED
08-01-2017

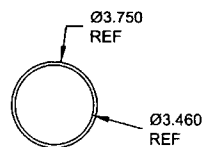
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AUS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 2 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	<small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR CONVEYED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC</small>	



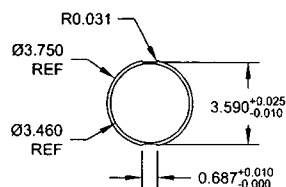
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



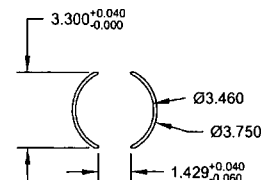
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



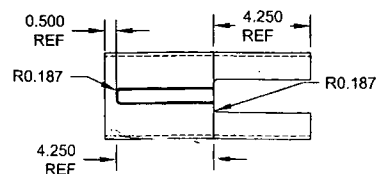
SECTION A-A
SCALE 2X



SECTION B-B
SCALE 2X







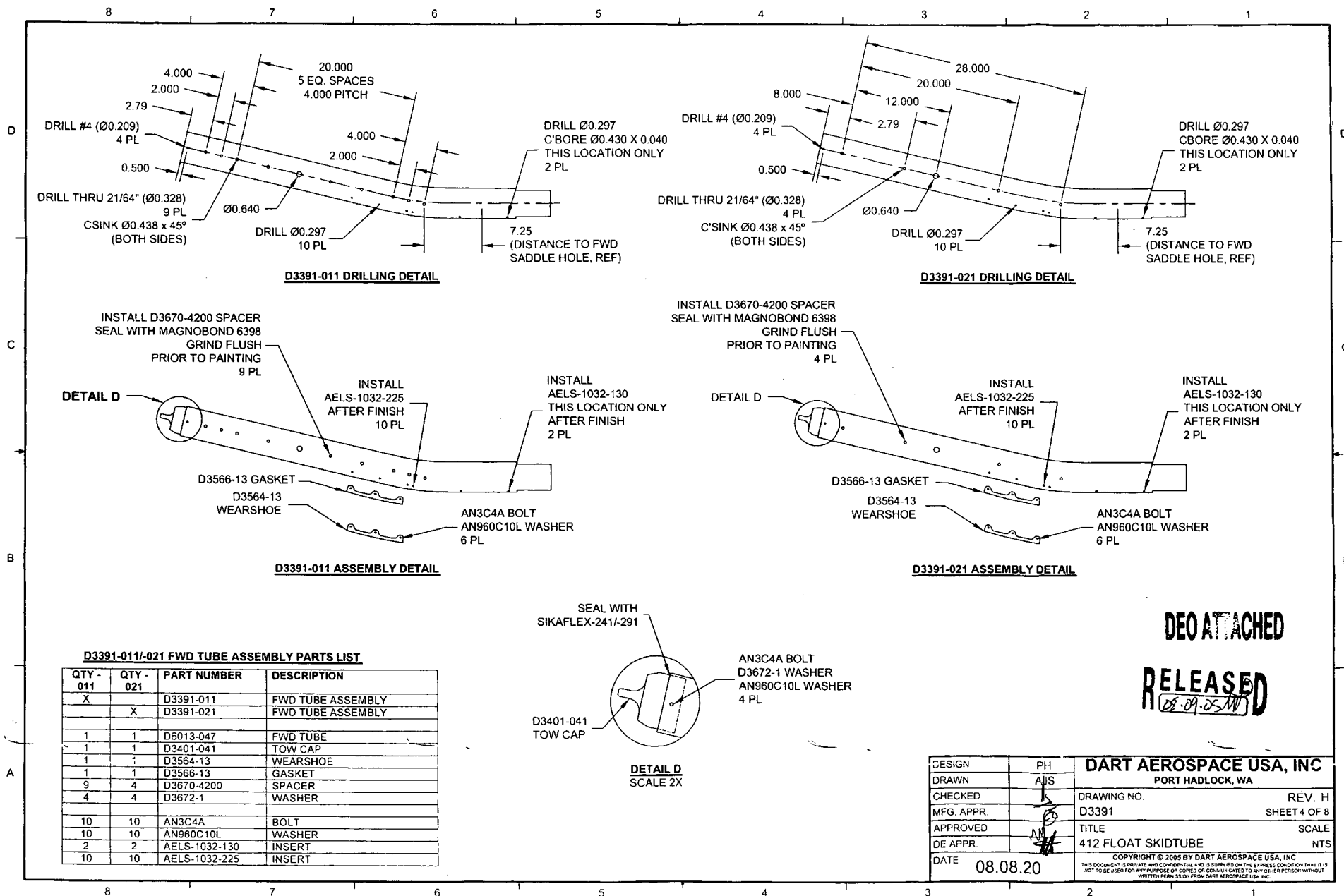
SECTION C-C
SCALE 2X

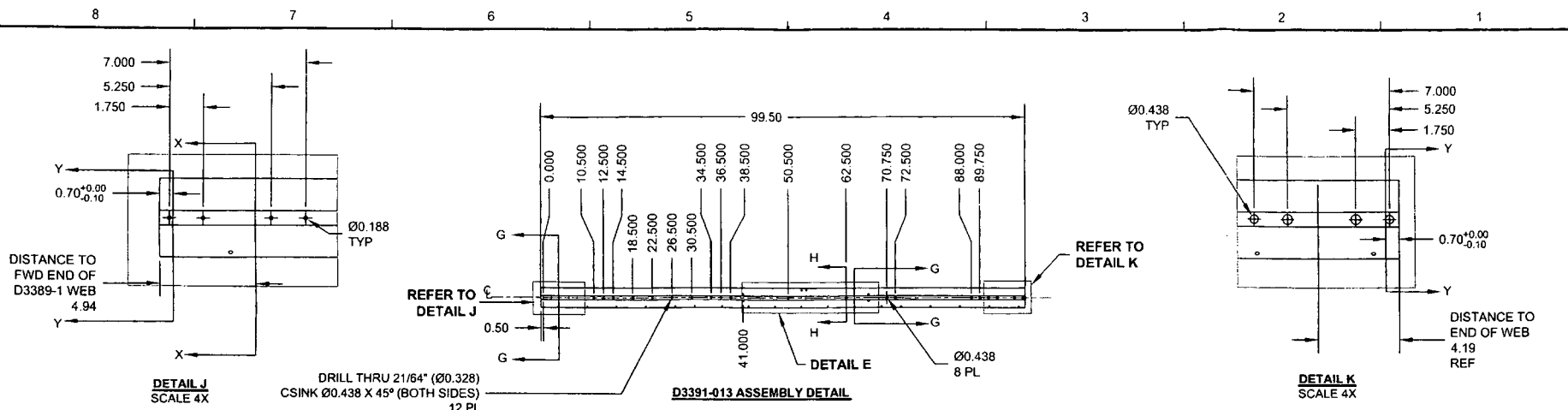


VIEW Z-Z
SCALE 2X

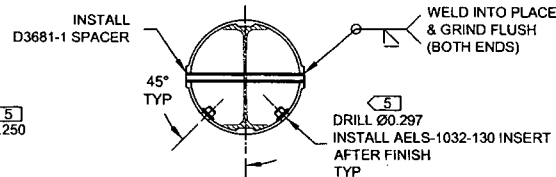
DEO ATTACHED
RELEASED
08-05-11

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MFG. APPR.		D3391	SHEET 3 OF 8
APPROVED		TITLE	SCALE
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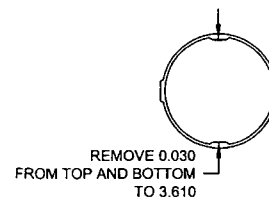




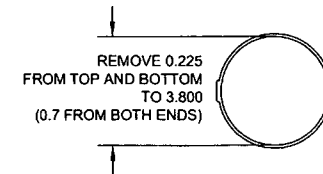
SECTION G-G
SCALE 5X



SECTION H-H
SCALE 5X



SECTION X-X
SCALE 5X



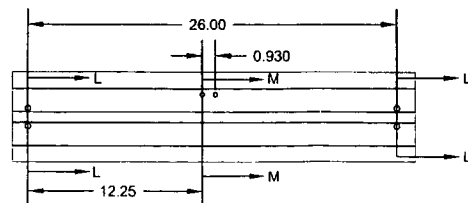
SECTION Y-Y
SCALE 5X

D3391-013 MID TUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
-013		
X	D3391-013	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
4	D3672-1	WASHER
4	D3672-3	WASHER
12	D3681-1	SPACER
24	AELS-1032-130	INSERT
4	ALS4-428-165	INSERT
4	AN960C10L	WASHER
4	AN960C416L	WASHER
4	MS27039C1-09	SCREW
4	MS27039C4-08	SCREW

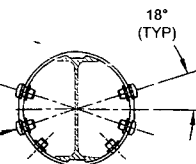
D3391-013 MID TUBE ASSEMBLY

- MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
- WELDING: PER DART QSI 004

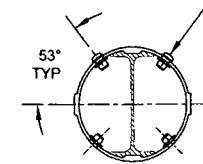


DETAIL E
SCALE NONE

DRILL Ø0.391
INSTALL ALS4-428-165 INSERT
MS27039C4-08 SCREW
D3672-3 WASHER
AN960C416L WASHER
AFTER FINISH
4 PL

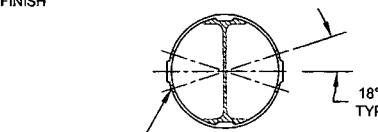


SECTION L-L
SCALE 5X



SECTION M-M
SCALE 5X

DRILL Ø0.297
INSTALL AELS-1032-130 INSERT
MS27039C1-09 SCREW
D3672-1 WASHER
AN960C10L WASHER
AFTER FINISH
4 PL

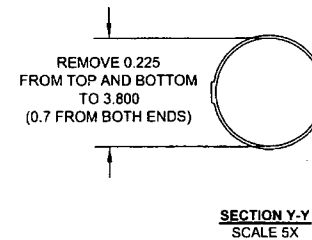
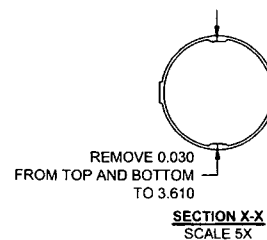
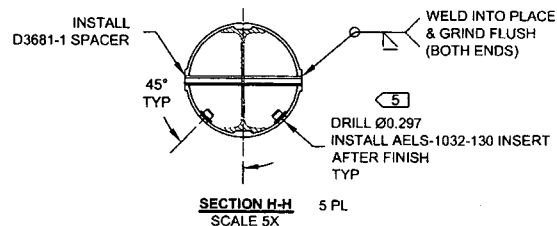
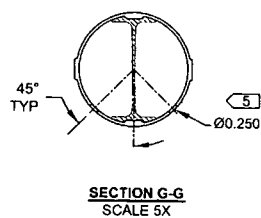
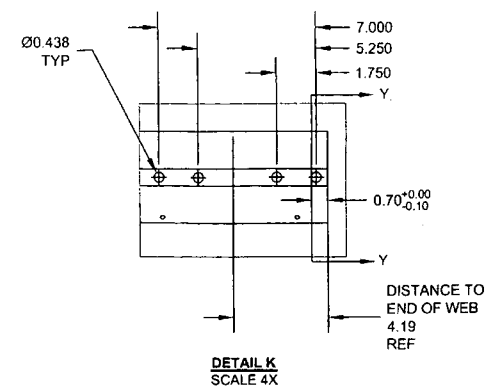
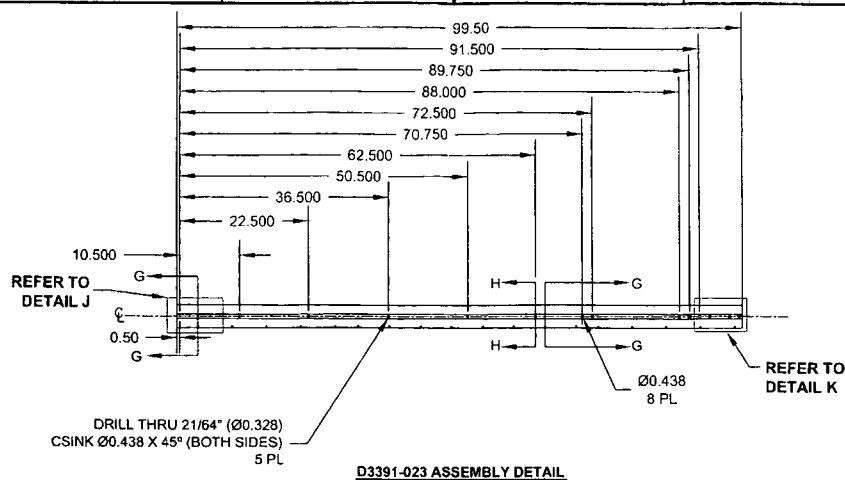
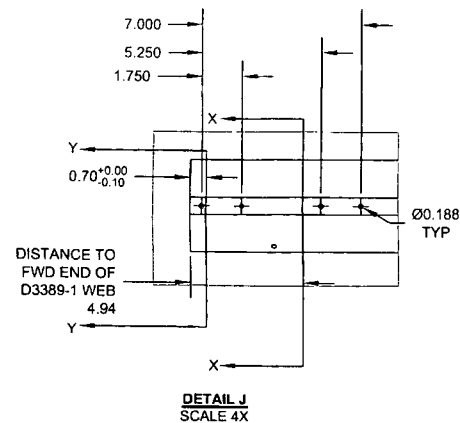


SECTION LL-LL
SCALE 5X

DEO ATTACHED

RELEASED

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AUS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 5 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC	



D3391-023 MID TUBE ASSEMBLY PARTS LIST

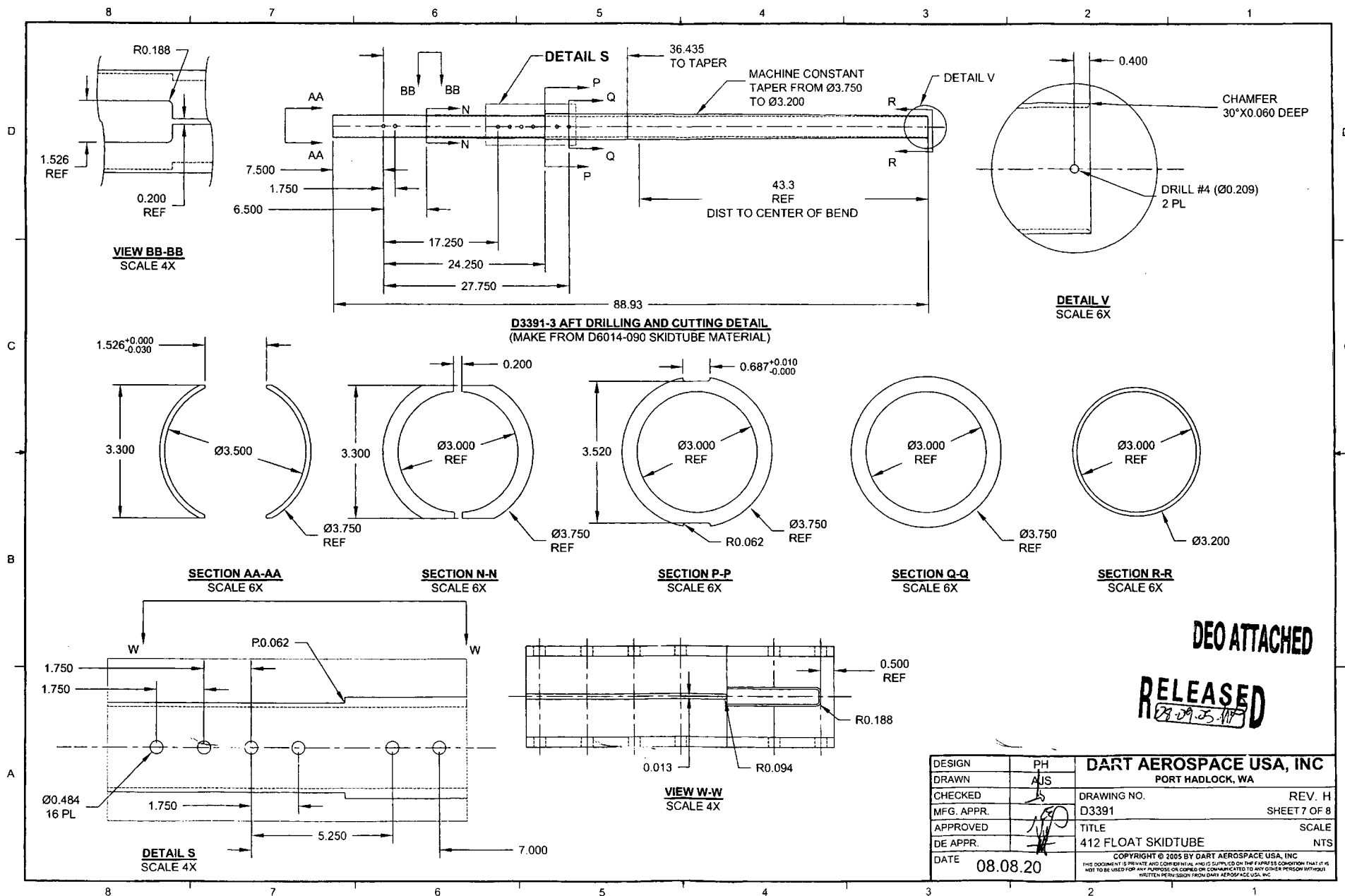
QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

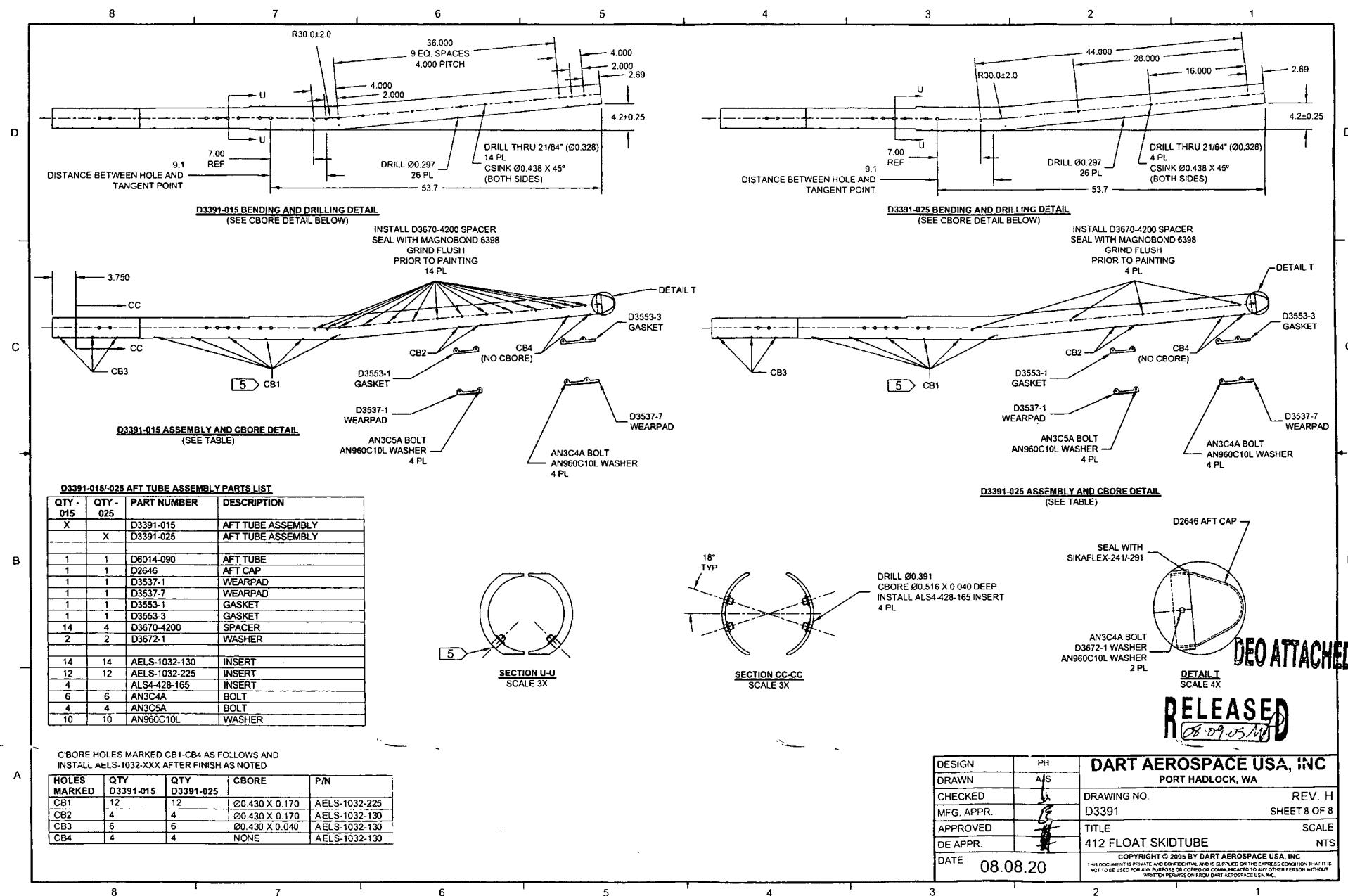
D3391-023 MID TUBE ASSEMBLY

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- 3) WELDING: PER DART QSI 004

DEO ATTACHED
RELEASED
08-08-20

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 6 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	





DRAWING NO. D3391	TITLE 412 FLOAT SKIDTUBE	REV. H	DART AEROSPACE USA, INC ENGINEERING ORDER		D.E.O. NO. D3391-H-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>UP</i>	CHECKED <i>h</i>	MFG. APPR. <i>h</i>	APPROVED <i>MP</i>		DE APPR. <i>h</i>		
DATE 09.09.23	DATE 04.09.24	DATE 09/09/25	DATE 09/09/30		DATE 09/09/30		

PURPOSE:

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF D3391-041/-043 SKIDTUBES.

CHANGE:

AMEND NOTE 2 OF D3391-041/-043 SKIDTUBE ASSEMBLIES (ZN A6-1, A6-2) AS FOLLOWS:

- 2) ~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH~~
~~AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH~~
 LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS
 OFF POWDER COATING WITH MEK DEGREASER.

RELEASED
 2010-02-02

MP

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5.0 PARTS LIST

5.1 D412-742-011 (PMA/OEM) Float Skidtube Installation Parts List

Item	Qty -011	Qty -041	Qty -015	Part Number	Description
	X			D412-742-011	FLOAT SKIDTUBE INSTALLATION
	1	X		D412-742-041	FLOAT SKIDTUBE
	1		X	D412-742-015	ELECTRIC STEP KIT
		1		D3391-041	412 FLOAT SKIDTUBE
1		*24		*AN3C4A	*BOLT
3		*12		*AN3C6A	*BOLT
4		*8		*AN3C7A	*BOLT
5		*44		*AN960C10L	*WASHER
6		*4		*MS27039C4-12	*SCREW
7A		*4		*D3672-3	*WASHER (REPLACES NAS1515H4L)
7B		*4		*AN960C416L	*WASHER
21A		*1		*D3564-1	*WEARSHOE (REPLACES D3460-1)
21B		*1		*D3566-1	*GASKET
22A		*1		*D3564-3	*WEARSHOE (REPLACES D3460-3)
22B		*1		*D3566-1	*GASKET
23A		*1		*D3564-5	*WEARSHOE (REPLACES D2577-5)
23B		*1		*D3566-5	*GASKET
10		*1		*D3391-011	*412 FORWARD TUBE
11		**1		**D3401-041	**TOW CAP
12A		**10		**AELS-1032-225	**INSERT (REPLACES NAS1330S3KB166)
12B		**2		**AELS-1032-130	**INSERT (REPLACES NAS1330S3KB166)
13		**10		**AN3C4A	**BOLT
14A		**4		**D3672-1	**WASHER (REPLACES NAS1515H3L)
14B		**10		**AN960C10L	**WASHER
24A		**1		**D3564-13	**WEARSHOE
24B		**1		**D3566-13	**GASKET
20		*1		*D3391-013	*412 MID TUBE
28		**24		**AELS-1032-130	**INSERT (REPLACES NAS1330S3KB116)
30		*1		*D3391-015	*412 AFT TUBE
25A		**1		**D3537-1	**WEARPAD
25B		**1		**D3553-1	**GASKET
26A		**1		**D3537-7	**WEARPAD
26B		**1		**D3553-3	**GASKET
31		**1		**D2646	**AFT CAP
32		**14		**AELS-1032-130	**INSERT
36		**12		**AELS-1032-225	**INSERT (REPLACES NAS1330S3KB366)
37A		**6		**AN3C4A	**BOLT
37B		**4		**AN3C5A	**BOLT
38A		**2		**D3672-1	**WASHER (REPLACES NAS1515H3L)
38B		**10		**AN960C10L	**WASHER
39		**4		**ALS4-428-165	**INSERT (REPLACES NAS1330S4KB151)

(CONTINUED ON PAGE 17)

REFERENCE ONLY

DART AEROSPACE USA, INC.

IIN-D412-742

Page 17 of 20

(CONTINUED FROM PAGE 16)

Item	Qty -011	Qty -041	Qty -015	Part Number	Description
40	1			D2571	SADDLE, FWD OUTSIDE
41	1			D2572	SADDLE, FWD INSIDE
42	1			D2573	SADDLE, AFT OUTSIDE
43	1			D2574	SADDLE, AFT INSIDE
44	2			D2876	SADDLE SPACER
45	2			D2877	SADDLE SPACER
46	16			D3403-1	BUSHING
47A	4			D2747	SET SCREW
47B	2			D3533-1	SET SCREW
48	16			AN4C6A	BOLT
49	8			AN4C52A	BOLT
50	8			AN6C12A	BOLT
51A	32			D3672-3	WASHER (REPLACES NAS1515H4L)
51B	32			AN960C416L	WASHER
52A	8			D3672-9	WASHER (REPLACES NAS1515H6L)
52B	8			AN960C616L	WASHER
53	16			D3672-11	WASHER (REPLACES NAS1515H7L)
54	24			MS21043-4	NUT
55	4			AN4C7A	BOLT
60	8			D3403-3	BUSHING
61	1			D3405-041	GHW LUG
62	1			D3405-043	GHW LUG
63	4			AN4C46A	BOLT
64	4			MS21043-4	NUT
70	1			D3407-041	TOW RING
71	2			D3417-3	WASHER
72	1			MS21043-4	NUT
73	1			D3456-1	WASHER
80			1	D2913	DOUBLER
81		***4		***ALS4-428-165	***INSERT (REPLACES NAS1329S4KB140)
82		***4		***AELS-1032-130	***INSERT (REPLACES NAS1330S3KB116)
83			2	MS21043-4	NUT
84			2	MS24693-C272	SCREW
85			1	MS35489-35	GROMMET
86			1	MS35489-93	GROMMET
87		***4		***MS27039C1-09	***SCREW
88		***4		***MS27039C4-08	***SCREW
89A		***4	2	***D3672-1	***WASHER (REPLACES NAS1515H3L)
89B		***4	2	***AN960C10L	***WASHER
90A		***4		***D3672-3	***WASHER (REPLACES NAS1515H4L)
90B		***4		***AN960C416L	***WASHER
91	3			AN3C37A	BOLT
92	2			AN3C40A	BOLT
93	3			AN3C41A	BOLT
94	3			AN3C42A	BOLT
95	3			AN3C43A	BOLT
96	9			AN3C44A	BOLT
98	10			AN3C47A	BOLT
99	66			AN960C10L	WASHER
100	33			MS21043-3	NUT

*DENOTES PART IS INCLUDED WITH D3391-041 ASSEMBLY ABOVE

**DENOTES THAT PART IS INCLUDED ABOVE ASSEMBLY

***DENOTES THAT PART IS INCLUDED WITH D3391-013

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Revision: D

Date: 07.10.04

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-742 REV. D AND
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-742 REV. 3.

REF. FAA STC: SR01583SE

REF. CANADIAN STC: SH05-37

REF. EASA STC: EASA.IM.R.S.01126

REFERENCE ONLY

INSTRUCTIONS:

- 1) FOR D412-742-011/-013 SKIDTUBES @ CHANGE 006 AND SUBSEQUENT, UPDATE THE PARTS LIST TO MODIFY THE BOLT USED TO ATTACH THE GHW LUG AS FOLLOWS:

5.1 D412-742-011 (PMA/OEM) Float Skidtube Installation Parts List

32.15 D412-742-011 (PMA/OEM) Float Skidtube Installation Parts List

ITEM	Qty -011	Qty -041	Qty -015	PART NUMBER	DESCRIPTION
	X			D412-742-011	FLOAT SKIDTUBE INSTALLATION
	1	X		D412-742-041	FLOAT SKIDTUBE
	1		X	D412-742-015	ELECTRIC STEP KIT

IS:

63	4			AN4C47A	BOLT
----	---	--	--	---------	------

WAS:

63	4			AN4C46A	BOLT
----	---	--	--	---------	------

5.2 D412-742-013 (APICAL TRI-BAG) Float Skidtube Installation Parts List

32.16 D412-742-013 (APICAL TRI-BAG) Float Skidtube Installation Parts List

ITEM	Qty -013	Qty 043	PART NUMBER	DESCRIPTION
	X		D412-742-013	FLOAT SKIDTUBE INSTALLATION
	1	X	D412-742-043	FLOAT SKIDTUBE

IS:

63	4		AN4C47A	BOLT
----	---	--	---------	------

WAS:

63	4		AN4C46A	BOLT
----	---	--	---------	------

A	NEW ISSUE	AJS	08.12.19
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	AJS		
CHECKED	J	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9441	SHEET 1 OF 1
APPROVED	W	TITLE	SCALE
DE APPR.	W	BOLT CHANGE	NTS
DATE	08.12.19	COPYRIGHT © 2008 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	